

A.4 WSSRAP

A Bubble chart, at the MTU level of recycled uranium, representing the flows into WSSRAP has been developed based on the information presented in the Tables, following the bubble chart. The Tables have been developed at the uranium and uranium-235 level (grams for enriched uranium and kilograms for the normal and depleted uranium). The Tables include all years, however, only the recycled uranium is included in the bubble charts. Table ES-1 highlights the differences between the Total Receipts and the Recycled Uranium Receipts. Additional detail is summarized in Section 3.1 of this report.

A.4.1 MATERIAL BALANCE DATA SOURCES

The data source used to develop the WSSRAP historical receipts and shipments was obtained from a DOE-ORO report, DOE/OR-872, published in 1986.

The data summaries and annual material balances contained in the report originate from two primary sources: (1) data compilations and their associated workpapers prepared by DOE employees, and (2) monthly material balance reports provided to DOE by the operating contractor, Mallinckrodt Chemical Works. While cumulative data are available, some annual data sets from these two sources for the period 1957 through 1966 are not available.

Data search activities included: (1) two thorough searches of retired DOE files retained in Oak Ridge, Tennessee, (2) an inspection of the files retained at the WSSRAP, (3) contacts with the U.S. Government Records Center at Winnebago Street, St. Louis, Missouri, and (4) reviews of active DOE files. Only items (1) and (4) produced usable information, and all of the information from these two sources has been compiled and stored by DOE in Oak Ridge, TN. This information is in the form of contractor-generated material balance reports, Doe-generated nuclear material control survey reports, and workpaper packages that support some of the surveys. It is evident from federal records destruction instructions and information from all other sources that the information now in active DOE files is, in all probability, the only quantitative nuclear materials data still available.

Since this report did not specify, by name, the sites that WSSRAP received from and shipped to, the DOE-OH Recycled Uranium Project Report team quantified WSSRAP receipts and shipments using material flow information from Fernald. This process results in the WSSRAP receipts and shipments being distributed to FEMP and other sites.



A.4.2 MATERIAL BALANCE DATA PRESENTATION AND DISCUSSION

All nuclear materials transactions were recorded by the operating contractor and reported monthly to DOE. These records of transactions (receipts and shipments) along with records of intra-plant inventories and plant discards were reviewed and evaluated by DOE nuclear materials control groups on a continuing basis.

Annual audits of all nuclear materials holdings were performed by DOE employees as an independent survey/check of the contractor's accountability program. These evaluations and audits addressed each of the four nuclear materials stored and/or processed at the plant site. The data available on each of these nuclear materials are presented and discussed in this section.

Material Types

Natural Uranium

Natural uranium (0.72 weight % U-235) was typically received as an ore concentrate in drums and similar containers. The uranium content of such receipts was determined by carefully controlled sampling and analytical procedures. Significant receiver-shipper differences were resolved by referee analyses at other locations. While the concentrates were generally homogenous and analytical methods were generally sound, some small variances were common. However, these variances were observed to be of a random nature and, therefore, are believed to have had minimal effect on assigned values.

Depleted Uranium

Uranium depleted in U-235 content to the levels below that of natural uranium was received as metal and various intermediate chemical forms. For reasons of safety, efficiency, and economy, this material (which is identical to natural uranium in chemical and physical properties but of lower intrinsic value than natural uranium) was used primarily in pilot plant tests of possible plant flow sheet changes and manufacturing methods improvements.

Slightly Enriched Uranium

Uranium having a U-235 content (typically 0.95 weight % U-235) slightly above that of natural uranium (0.72 weight % U-235) was received as scrap metal and residues and was processed on a batch basis to produce a pure product that was then shipped to other DOE contractors. Receiver-shipper differences for the incoming scrap and residues were, sometimes, contributing factors for some of the plant inventory differences.



Discards

The annual stack discard (atmospheric discharge) values were engineering estimates derived from airflows and other process factors along with stack monitoring data. Because of the large volume of natural uranium processed in all plant facilities, it accounted for about 94 % of the total stack discards of 45,041 Kgs (all uranium), or 12 Kgs per day during the operational life of the plant. The chemical and physical forms of such releases varied but were essentially oxides of uranium (or their equivalents). Period area monitoring data indicates little material was detected off-site.

Three sewer systems served the plant: sanitary, storm, and process. Treated sanitary sewage releases and releases from storm sewers were released routinely to designated drainageways with flow-rate measurements and proportional analyses performed as appropriate. Process sewers were monitored continuously and effluents were diluted as necessary to ensure compliance with applicable discharge limits.

From 1958 to 1964, a series of four raffinate pits with a combined surface area of about 26 acres and a combined volume capacity of 650,000 cubic yards were constructed to receive refinery sludge. The volume of waste placed in these pits is estimated to be 220,000 cubic yards. All discards to the raffinate pits were measured. The residues in the pits remain covered with rainwater most of the time until their processing during site remediation in the late 1990s. The recorded quantities of nuclear materials place there annually have been documented.

Inventory Differences

The DOE has specified accounting requirements for nuclear materials which it handles. Differences between the amounts of nuclear materials charged to DOE facilities and the amounts physically inventoried have been reported and explained semi-annually by DOE since October 1, 1976. The WSSRAP nuclear materials balances and inventories, while, according to records, were analyzed, and, where necessary, investigated and resolved, they have not been reported previously. The inventory differences between "book" and physical inventories and are variances obtained when book and physical inventories are drawn and compared. These differences are not to be construed as being necessarily real figures but, rather, the quotient obtained when book and physical inventories are treated of equal validity in the formula:

(Beginning Inventory + Receipts) - (Ending Inventory + Removals) X 100 = (Beginning Inventory + Receipts)



Book values as used here represent measured and/or accepted values (shipper values were sometimes accepted by DOE on contractual or other bases) and recorded in ledgers. Similarly, inventory values were sometimes a mixture of measured and accepted values.

Efforts to remove all nuclear materials from the plant site at shutdown were apparently generally successful. However, small quantities, not included in recorded inventories and removals, were found after shutdown and may continue to be found in the future. Such quantities, if now included, would reduce observed inventory differences, but only marginally so. Therefore, their exclusion from formal accountability records is believed to be insignificant.

REFERENCES:

U.S. DOE ORO, July 1986, "Historical Nuclear Materials Balance Report For The Former AEC Owned Weldon Spring Chemical Plant, Weldon Spring, Missouri," DOE/OR-872, DOE-ORO, Oak Ridge, TN.

FIGURE A.1-7

WELDON SPRING RECEIPTS & **SHIPMENTS**

ENRICHED URANIUM

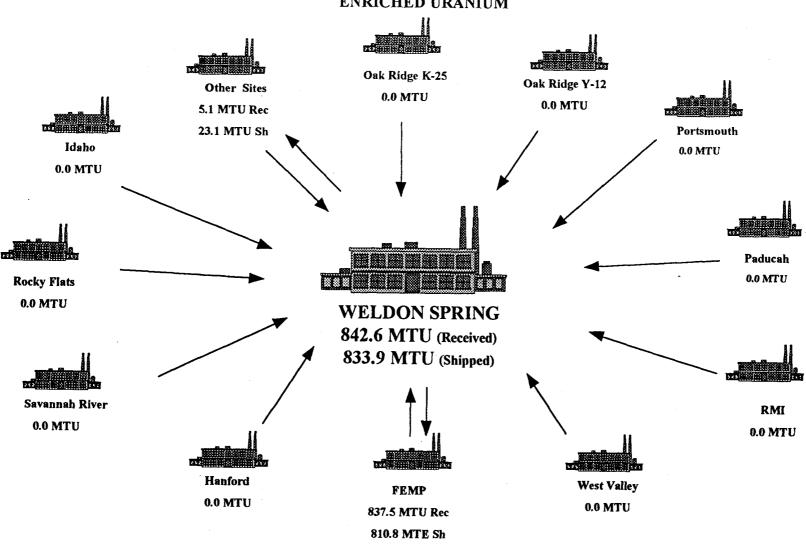


FIGURE A.1-8

WELDON SPRING RECEIPTS & SHIPMENTS

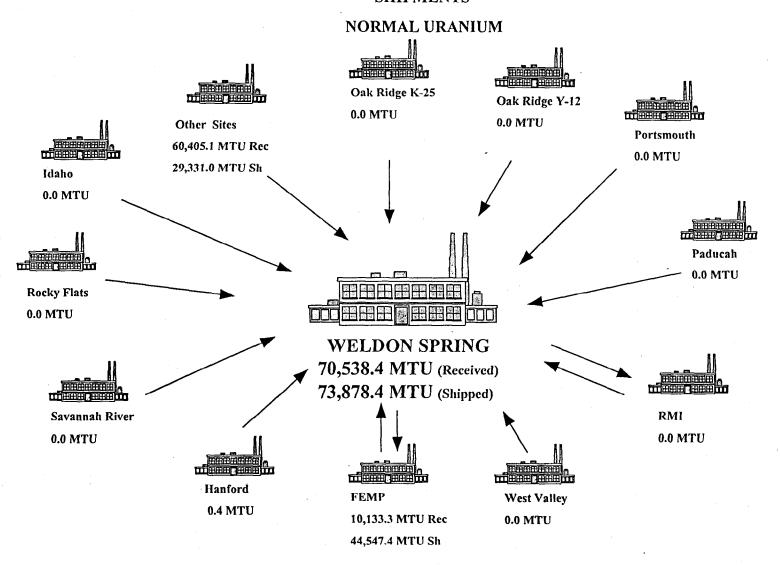
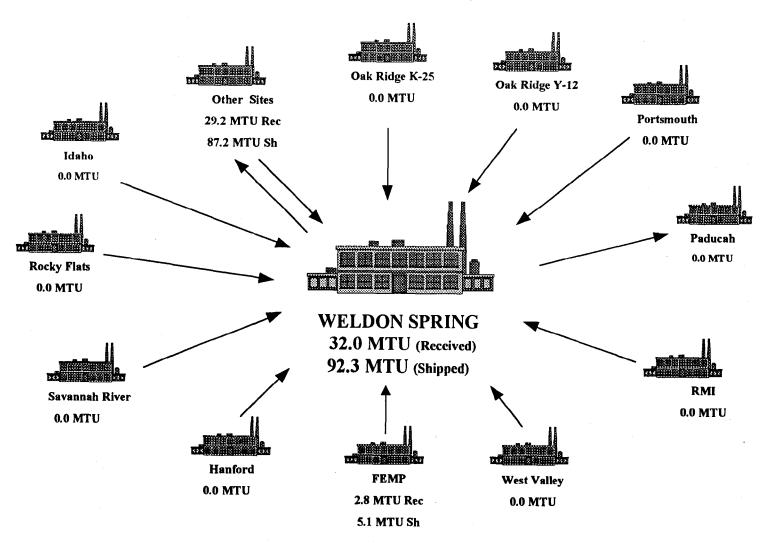


FIGURE A.1-9

WELDON SPRING RECEIPTS & SHIPMENTS

DEPLETED URANIUM



| EXTERNAL RECEIPTS ENRICHED URANIUM | FY1952- | -FY1961 | FY1962- | FY1969 | FY1970-1 | Y1979 | FY1980 | FY1989 | FY1990 | -FY1999 | TOTA | |
|------------------------------------|----------|--------------|-------------|--------------|----------|--------------|----------|--------------|----------|--------------|-------------|--------------|
| SITE | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS |
| | | | | | | | | | | | | |
| Pu PROCESSING PLANTS * | | | • | | | | | | | | | |
| GASEOUS DIFFUSION PLANTS | | | | | | | | | | | | |
| WEAPONS PLANTS | | • | | l | | | | | | | | |
| U PROCESSING PLANTS | | | 837,461,360 | 7,853,370 | | | | | | | 837,461,360 | 7,853,370 |
| OTHER SITES | | 4 | 5,123,286 | 533,922 | | | | | | | 5,123,286 | 533,926 |
| | | | | | | | | | | | | |
| TOTAL | · | 4 | 842,584,646 | 8,387,292 | | - | | - | | - | 842,584,646 | 8,387,296 |
| | | | | | | | | | | | | |

^{*} INCLUDES SCRAP NOT PROCESSED

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1952 | FY | 1953 | FY | 1954 | FY | 1955 | FY | 1956 | FY | 1957 | FY | 1958 | FY | 1959 | FY | 1960 |
|------------------------------------|-----|-------|-----|-------|-----|-------|----------|----------|-----|-------|-----|-------|-----|----------|----------------|----------|------------|------------|
| | U | U-235 | U | U-235 | U | U-235 | U | U-235 | Ü | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | L | | | | | | | l | | | |
| OAK RIDGE K-25 | - | | | | - | - | L: | | | - | | | - | | - | l | | <u> </u> |
| OAK RIDGE Y-12 | - | | | | | | L | | | | | | | <u> </u> | l | l | | <u> </u> |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | - | | | | - | | L: | <u> </u> | | | | | | | <u> </u> | <u> </u> | | <u> </u> |
| PADUCAH GASEOUS DIFFUSION PLANT | | - | | | | | L: | | | - | | - | | | <u> </u> | <u> </u> | | L |
| FERNALD | - 1 | - | | | - | | <u> </u> | | | | | | | | <u> </u> | | - | <u> </u> |
| RMI | - | - | - | | - | - | | L | - | | | | | | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| WEST VALLEY | | | | - | - | | L.: | | | - | | | | | l | | <u> </u> | L: |
| WELDON SPRING | | - | | | - | | L_: | | | - | | | | | <u>-</u> | | L <u>:</u> | <u> </u> |
| HANFORD | | | | | - | | L: | | | | - | | | <u>-</u> | <u> </u> - | | - | |
| SAVANAH RIVER | | - | | | - | - | L | | | | | - | | | <u>-</u> | l | | |
| ROCKY FLATS | | | | - | - | | <u> </u> | | | - | | | | | | | | <u></u> |
| IDAHO | | | | | | | <u> </u> | <u> </u> | | | | | | | | | | <u> </u> |
| OTHER SITES | | | | | | | | <u>-</u> | | | | | 400 | 4 | ļ . | | | ļ <u>:</u> |
| | | | | | | | | | | | | | | | ļ | | ļ | |
| TOTAL | - | - | - | - | - | - | - | | | - | - | - | 400 | 4 | <u> </u> | - | - | |
| | | | | | | | | | | | | | · | | | | | |

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1961 | FY | 1962 | FY19 | 63 | FY19 | 64 | FY19 | 65 | FY19 | 66 |
|------------------------------------|-----|-------|-----|-------|------------|---------|--------------|-----------|-------------|-----------|------------|---------|
| | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | |
| OAK RIDGE K-25 | - | | | | | | | | | | | |
| OAK RIDGE Y-12 | _ : | | | | | | | | | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | - | | | - | | | | | | | | |
| PADUCAH GASEOUS DIFFUSION PLANT | - | - | | | | | | | | | | |
| FERNALD | - | - | | - | 94,678,000 | 896,635 | 344,628,800 | 3,240,279 | 359,219,300 | 3,370,175 | 27,699,746 | 238,443 |
| RMI | - | | | | | | | | | | | |
| WEST VALLEY | - | | - | | - | | | | | | | |
| WELDON SPRING | - | | | | - | | | | | <u>-</u> | | |
| HANFORD | - | | - | - | | | | | | | | |
| SAVANAH RIVER | | | | | - | | | | | | | |
| ROCKY FLATS | | | | | - | | | | | | | |
| IDAHO | | | | | | | - | | | | | |
| OTHER SITES | | | | | 16,600 | 50,311 | (79,305,700) | (587,048) | 82,758,100 | 1,049,599 | | |
| TOTAL | - | - | • | - | 94,694,600 | 946,946 | 265,323,100 | 2,653,231 | 441,977,400 | 4,419,774 | 27,699,746 | 238,443 |
| | | | | | | | | | | | | |

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY19 | 67 | FY | 1968 | FY | 1969 | FY | 1970 | FY | 1971 | FY | 1972 | FY | 1973 | FY | 1974 | FY | 1975 |
|------------------------------------|------------|---------|-----|-------|----------|-------|-----|------------|----------|-------|----------|-------|-----|-------|----------|--------------|--------------|--------------|
| | U | U-235 | U | U-235 | υ | U-235 | υ | U-235 | U | U-235 | U | U-235 | · U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | - | • | | | <u> </u> | | | | | | - | | | | | | <u> </u> | |
| OAK RIDGE Y-12 | - | - | - | | | | | | | - | | | | | <u> </u> | | <u> </u> | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | - | | - | - | | | | - | <u> </u> | | | | - | | | | <u> </u> | |
| PADUCAH GASEOUS DIFFUSION PLANT | - | - | | | | | | | | | | | | | | | <u> </u> | |
| FERNALD | 11,235,514 | 107,838 | - | - | | | | L | <u> </u> | | | | | | | <u> </u> | <u> </u> | |
| RMI | - | | - | | - | | | | <u> </u> | | | | - | | | | <u> </u> | |
| WEST VALLEY | - | | | | | L | | | <u> </u> | | | | | | | <u> </u> | | |
| WELDON SPRING | - | | - | - | | | | | <u> </u> | | | | | | | <u> </u> | <u> </u> | |
| HANFORD | - | - | - | | | | | L | | - | <u> </u> | | | | | | | |
| SAVANAH RIVER | | | | | | | | <u> </u> | | | | | | | | | <u> </u> | |
| ROCKY FLATS | - | - | | | | | | <u> </u> | | | | | | | <u> </u> | | <u> </u> | |
| IDAHO | - | | | | | | | ļ | | | | | | | <u>:</u> | | <u> </u> | |
| OTHER SITES | 1,654,286 | 21,060 | L | | | | | ļ <u>.</u> | | | | | | | | - | ļ <u>-</u> | - |
| TOTAL | 12,889,800 | 128,898 | | _ | | _ | | | - | | | | | | - | | - | |
| TOTAL | 12,007,000 | 120,070 | | | | | | | _ | | | | | | | | _ | |

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1976 | FY | 1977 | FY | 1978 | FY | 1979 | FY | 1980 | FY | 1981 | FY | 1982 | FY | 1983 | FY | 1984 | FY | 1985 |
|------------------------------------|-----|-------|-----|----------|-----|----------|-----|----------|----------|--------------|------------|-------|------------|-------|------------|----------|----------|------------|--------------|-------|
| | บ | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | | | | | <u> </u> | | | | |
| OAK RIDGE K-25 | | | | L | L | | l | <u> </u> | <u> </u> | | L: | L | L <u>-</u> | - | l: | | | | L | |
| OAK RIDGE Y-12 | | | | L | - | <u> </u> | | | <u> </u> | | | | | - | l <u>-</u> | | | <u> </u> | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | - | - | - | L:_ | | L | | <u> </u> | <u> </u> | | L: | L | | | l <u>:</u> | <u> </u> | | <u> </u> | <u> </u> | |
| PADUCAH GASEOUS DIFFUSION PLANT | - | | • | | | | - | | <u> </u> | | L | L | | | <u> </u> | <u> </u> | | <u> </u> | <u> </u> | |
| FERNALD | - | - | | L | L | L | | | | | L | L | | - | <u> </u> | <u> </u> | | l | L: | |
| RMI | - | - | | | | | | - | <u> </u> | l | L | L | | | <u>:</u> | <u> </u> | | l | L | |
| WEST VALLEY | - | | | | | | | - | | | | | | | <u> </u> | | | | <u> </u> | |
| WELDON SPRING | - | | - | | | | | - | | | | L | | | l | | | | L.: | |
| HANFORD | | | | <u>-</u> | | | - | <u> </u> | · | | | L | | | l: | L | | l <u>-</u> | <u> </u> | |
| SAVANAH RIVER | | | | L | | | | | <u></u> | | L <u>-</u> | L | | - | | <u> </u> | | | L | |
| ROCKY FLATS | - | | | | • | | | | | l | L.: | L:_ | | | l: | <u> </u> | <u> </u> | <u> </u> | L | |
| IDAHO | - | - | | | | L: | | | | | - | L: | | | l <u>:</u> | | | <u> </u> | <u> </u> | |
| OTHER SITES | - | | | | | | - | | | - | | | | | <u> </u> | <u> </u> | | <u> :-</u> | L.: | |
| | | | | | | | | | | | | | | | | | | L | | |
| TOTAL | ı | | • | • | - | - | • | - | - | - | | - | | - | - | - | | - | <u> - </u> | |
| | | | | | | | | | | | | | | | | | | | | |

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY19 | 86 FVA | FY19 | 86 FVC | FY | 1987 | FY | 1988 | FY | 1989 . | FY | 1990 | FY | 1991 | FY | 1992 | FY | 1993 | FY | 1994 |
|------------------------------------|---------------|--------|------|----------|----------|-------|----------|--------------|-----|--------------|------------|-------|-----|-------|--------------|-------|----------|------------|----------|-------|
| | | U-235 | | U-235 | | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | <u> </u> | - | | | | | | | | | | | | | <u>-</u> | | | ļ <u>:</u> | | |
| OAK RIDGE Y-12 | <u>.</u> | | | | <u>-</u> | - | <u> </u> | | | : | | | | | | | | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | | | | | | <u>-</u> | | | <u>:</u> | | | | | | | | | | |
| PADUCAH GASEOUS DIFFUSION PLANT | L <u>.:</u> . | | | <u> </u> | | | <u> </u> | | | <u>-</u> | | | | | | | | | | |
| FERNALD | L | | | <u> </u> | | | | | | | | | | | : | | | <u>-</u> | | |
| RMI - | | | | L: | | | | | | | | | | | <u>-</u> | | | | | |
| WEST VALLEY | - | | - | L | | | <u> </u> | - | | | L: | | | | - | | | | | |
| WELDON SPRING | - | - | - | L | l | - | <u> </u> | - | | | | | | | | | | | | |
| HANFORD | - | | | | | | <u> </u> | - | | | | | | | <u>-</u> | | | | | |
| SAVANAH RIVER | - | - | | L: | L | - | <u> </u> | | | | L | : | | | : | | | | | |
| ROCKY FLATS | - | - | - | <u>-</u> | | | <u> </u> | | | <u>-</u> | L <u>:</u> | | | | | | | | | |
| ДАНО | - | - | | L | L: | - | <u> </u> | - | | | L: | | | | | | | | <u> </u> | |
| OTHER SITES | <u> </u> | | | L | L | | | | | - | L_: | L: | | | | | | ļ: | L | : |
| | [| | | | | | | | | | | | | | | | | <u> </u> | | |
| TOTAL | - | - | - | - | - | - | - | - | | - | - | - | - | - | | - | <u> </u> | - | <u> </u> | - |
| | | | | | | | | | | | | | | | | | | | | |

| EXTERNAL RECEIPTS ENRICHED URANIUM | FY19 | 95 FVC | FY199 | 5 GVC | FY | 1996 | FY | 1997 | FY | 1998 | FY | 1999 | TOT | AL. |
|------------------------------------|-------------|--------|-------------|-----------|------------|-------|----------|-------|--------------|-------|-----|------------|-------------|-----------|
| | U | U-235 | U | U-235 | U | U-235 | Ü | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | | | | <u> </u> | L | - | | | : | | | :_ | | |
| OAK RIDGE Y-12 | I | | | L | L_: | | | | <u> </u> | | | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | L : | | | | | - | : | | | | | | | |
| PADUCAH GASEOUS DIFFUSION PLANT | <u> </u> | · | L | <u> </u> | <u> </u> | | | | | | | | | |
| FERNALD | · | - | | <u> </u> | <u> </u> | | | | | | | | 837,461,360 | 7,853,370 |
| RMI | <u> </u> | | L | <u> </u> | <u> </u> | | | | | | | | | |
| WEST VALLEY | Ŀ | - | | <u> </u> | L | | : | | <u>: </u> | | | | | |
| WELDON SPRING | <u> </u> | | | | L | | <u> </u> | | | | | | | |
| HANFORD | | | | <u> </u> | L | | <u> </u> | | l: | | | | | |
| SAVANAH RIVER | <u> L</u> | | | <u></u> _ | | | . | | : | | | | | |
| ROCKY FLATS | <u> </u> | | <u> </u> | <u> </u> | L: | | L | | <u>.</u> | | | | | |
| IDAHO | <u> L.:</u> | | | L | L | | : | | <u>:</u> | | | ļ <u>:</u> | | |
| OTHER SITES | ļ | | | ļ | ļ <u>.</u> | | | | - | | | | 5,123,686 | 533,926 |
| TOTAL | - | - | | | - | - | - | - | - | | - | - | 842,585,046 | 8,387,296 |
| | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING ENRICHED RECEIPTS

| | EXTERNAL RECEIPTS ENRICHED URANIUM | | FY | 1952 | FY | 1953 | FY | 1954 | FY | 1955 | FY | 1956 | FY | 1957 | FY | 1958 | FY | 1959 | FY | 1960 |
|---------------|------------------------------------|-------|----------|--------------|----------|--------------|----------|--------------|----|--------------|----------|--------------|----|--------------|-----|--------------|----|--------------|----|------------|
| RIS | SITE | | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | | U-235 GMS | U GMS | U-235 GMS | | U-235 GMS | | U-235 GMS | | U-235 GMS | - | U-23 GM |
| | FERNALD FEED CENTER | FEMP | ļ | | | ļ | | | | | | | | | | | ļ | - | ļ | ļ |
| VA/FVC IXA | UNC NUCLEAR INDUSTRIES, RICHLAND | HAN | | | | | <u> </u> | | | | | | | | | | | | | ļ |
| | OTHER SITES | OTHER | ļ | | | | ļ | | | | | | | | 400 | 44 | | | | |
| TOTAL | TOTAL | | Ŀ | - | Ē | - | 三 | - | · | - | - | - | _ | - | 400 | 4 | - | - | · | ⊏ |



| ···· | EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1961 | FY | 1962 | FY19 | 63 | FY19 | 64 | FY19 | 65 | FY19 | 66 |
|---|------------------------------------|-----|-------|----------|-------|------------|---------|--------------|-----------|-------------|-----------|------------|----------|
| | · | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| RIS | SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | | | | | | | | |
| FVA/FVC | FERNALD FEED CENTER | 1 | | | | 94,678,000 | 896,635 | 344,628,800 | 3,240,279 | 359,219,300 | 3,370,175 | 27,699,746 | 238,443 |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | T | | | | | | | | | | | |
| *************************************** | OTHER SITES | I : | | <u> </u> | | 16,600 | 50,311 | (79,305,700) | (587,048) | 82,758,100 | 1,049,599 | | |
| | | | | | | | | | | | | | |
| TOTAL | TOTAL | • | | - | - | 94,694,600 | 946,946 | 265,323,100 | 2,653,231 | 441,977,400 | 4,419,774 | 27,699,746 | 238,443 |
| | | | | | | | | | | | | | <u> </u> |

APPENDIX A.4 WELDON SPRING ENRICHED RECEIPTS

| | EXTERNAL RECEIPTS ENRICHED URANIUM | FY19 | 67 | FY | 1968 | FY | 1969 | FY | 1970 | FY | 1971 | FY | 1972 | FY | 1973 | FY | 1974 | | 1975 |
|---------|------------------------------------|------------|---------|----------|----------|-----|-------|-----|-------|-----|-------|----------|----------|---------|-------|-----|-------|-----|----------|
| | | U | U-235 | U | U-235 | | U-235 | | U-235 | | U-235 | | U-235 | _ | U-235 | | U-235 | - | U-23: |
| RIS | SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | | | | | L | | | | | | | | L | | | | | <u> </u> |
| FVA/FVC | FERNALD FEED CENTER | 11,235,514 | 107,838 | <u> </u> | | | | | | | | | <u> </u> | ļ | | | | | <u> </u> |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | | | I | L | l | L | L | | | | | <u> </u> | L | | | | L | <u> </u> |
| | OTHER SITES | 1,654,286 | 21,060 | <u> </u> | | | | L | | | | | | | | | | ļ | ļ |
| | ` | | | | <u> </u> | | | | | | | <u> </u> | | | | Ŀ | | | <u> </u> |
| TOTAL | TOTAL | 12,889,800 | 128,898 | | - | • | - | - | - | • | | | - | · | • | | - | - | |
| | | | | | | | | | | | | | | | | | | | <u> </u> |



| i | EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1976 | FY | 1977 | FY | 1978 | FY | 1979 | FY | 1980 | FY | 1981 | FY | 1982 | FY | 1983 | FY | 1984 |
|---------|------------------------------------|-----|-------|----------|----------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|----------|----------|----------|----------|
| | | | U-235 | U | U-235 | - | U-235 | U | U-235 | | U-235 |
| RIS | SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS |
| | | Ι | | | | | | | | | | | | | · | <u> </u> | | | |
| FVA/FVC | FERNALD FEED CENTER | I | | | | | | | | | | | | | | | | ļ | ļ |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | I | | <u> </u> | | | | | | | | | | | | | <u> </u> | <u> </u> | |
| | OTHER SITES | Ι | | <u> </u> | | | | | | | | | | | | | | ļ | |
| | | | | | <u> </u> | | | | | | | | | | | | | | |
| TOTAL | TOTAL | - | - | - | - | • | • | • | - | - | • | • | - | - | - | <u> </u> | - | · | <u> </u> |
| | | | | | | | | | | | | | | | | | | L | |

APPENDIX A.4 WELDON SPRING ENRICHED RECEIPTS

| | EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1985 | FY 19 | 86 FVA | FY19 | 86 FVC | FY | 1987 | FY | 1988 | FY | 1989 | FY | 1990 | FY | 1991 | FY | 1992 |
|--------|------------------------------------|----------|-------|-------|----------|----------|--------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|----------|
| | | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-2 |
| RIS | SITE | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GMS | GN |
| | | <u> </u> | | | | <u> </u> | | | | | | | | | | | L | | <u> </u> |
| VA/FVC | FERNALD FEED CENTER | T | | | <u> </u> | | | | | | | | | | | | | | I |
| IXA | UNC NUCLEAR INDUSTRIES, RICHLAND | T | 1 | | l | | | | | | | | | | | | | | l |
| | OTHER SITES | <u> </u> | | | | | | | | | | | | | | | | | I |
| | | | | | | | | | | | | | | | | | | | |
| TOTAL | TOTAL | T - | - | - | - | | - | • | - | - | • | - | - | • | - | • | - | - | · |
| | | | T | | | | | | | | | | | | | | | | Π |



| | EXTERNAL RECEIPTS ENRICHED URANIUM | FY | 1993 | FY | 1994 | FY19 | 95FVC | FY19 | 95ĠVC | FY | 1996 | FY | 1997 | FY | 1998 | FY | 1999 |
|---------|------------------------------------|----------|--------------|----------|--------------|----------|--------------|------|--------------|----------|--------------|----------|--------------|----------|--------------|----|--------------|
| RIS | SITE | U GMS | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | | U-235 GMS | _ | U-235 GMS | U GMS | U-235 GMS | U GMS | U-235 GMS | | U-235 GMS |
| | | | | | | | | | | | | | | | | | |
| FVA/FVC | FERNALD FEED CENTER | | <u> </u> | <u> </u> | | | | | | | | | L | | | | |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | L | L | <u> </u> | | | | | | | | | | | l | | |
| | OTHER SITES | | L | <u></u> | | | | | | | | | L | | | | |
| | | | | <u> </u> | | L | | | | | | L | | | | | <u> </u> |
| TOTAL. | TOTAL | • | - | - | • | - | - | • | - | <u> </u> | - | <u> </u> | | · | · - | - | |
| | | | | | | Ĺ | | | | | | l | L | | | | |

APPENDIX A.4 WELDON SPRING ENRICHED RECEIPTS

| | EXTERNAL RECEIPTS ENRICHED URANIUM | TOT | AL |
|---------|--|-------------|--------------|
| RIS | SITE | U GMS | U-235 GMS |
| FVA/FVC | FERNALD FEED CENTER | 837,461,360 | 7,853,370 |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND OTHER SITES | 5,123,686 | 533,926 |
| TOTAL | TOTAL | 842,585,046 | 8,387,296 |
| | | | |

| EXTERNAL RECEIPTS NORMAL URANIUM | FY1952-FY1961 | FY1962-FY1969 | FY1970-FY1979 | FY1980-FY1989 | FY1990-FY1999 | TOTAL |
|---|---------------|---------------|---------------|---------------|---------------|-------------|
| SITE | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS |
| P. NDOCTSCRIG W. AATS A | | | | | | ·· |
| Pu PROCESSING PLANTS * GASEOUS DIFFUSION PLANTS | | - | | - | | |
| WEAPONS PLANTS | | - | - | | - | - |
| U PROCESSING PLANTS | | 10,133,347 | - | - | - | 10,133,34 |
| OTHER SITES | 51,477,479 | 60,405,151 | | | - | 111,882,63 |
| TOTAL | 51,477,479 | 70,538,498 | _ | - | <u> </u> | 122,015,977 |
| | | | | | | |

^{*} INCLUDES SCRAP NOT PROCESSED

| EXTERNAL RECEIPTS NORMAL (NATURAL) URANIU | FY1952 | FY1953 | FY1954 | FY1955 | FY1956 | FY1957 | FY1958 | FY1959 | FY1960 | FY1961 | FY1962 | FY1963 |
|---|----------|--------|--------|--------|----------|----------|-----------|------------|------------|------------|------------|------------|
| | U | U | U | U | U | U | Ü | U | U | U | U | U |
| RIS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | |
| OAK RIDGE K-25 | <u> </u> | - | - | | <u>:</u> | - | | | | | | |
| OAK RIDGE Y-12 | <u> </u> | • | | | | - | | | | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | - | | | <u> </u> | | - | | | | | |
| PADUCAH GASEOUS DIFFUSION PLANT | <u> </u> | - | | | <u> </u> | | - | | | | | |
| FERNALD | | - | - | | <u> </u> | | | | | | 2,563,408 | 2,253,854 |
| REACTIVE METALS, INCORPORATED | · | - | | | | - | | | | | | |
| WEST VALLEY | - | | - | | - | | - | | | | | |
| WELDON SPRING | - | • | | | L | <u> </u> | - | | | | | |
| HANFORD - | - | - | - | - | | | - | | | | | |
| SAVANAH RIVER | - | - | | | l: | | - | | | | | |
| ROCKY FLATS | | | | | <u> </u> | | | | | | | |
| IDAHO | - | • | | - | L:_ | | | | | - | | |
| OTHER SITES | | | | | | | 8,000,407 | 12,898,013 | 15,032,283 | 15,546,776 | 13,445,683 | 16,619,497 |
| mom . T | | | | | ļ | | 8,000,407 | 12,898,013 | 15,032,283 | 15,546,776 | 16,009,091 | 18,873,351 |
| TOTAL | - | | | | | | 8,000,407 | 12,098,013 | 13,032,263 | 13,340,770 | 10,009,091 | 10,073,331 |
| | | | | | | | | <u></u> | | | | |

| EXTERNAL RECEIPTS NORMAL (NATURAL) URANIU | FY1964 | FY1965 | FY 1966 | FY1967 | FY 1968 | FY 1969 | FY1970 | FY 1971 | FY1972 | FY1973 | FY1974 | FY1975 | FY1976 | FY1976A |
|---|------------|------------|-----------|---------|----------|----------|--------|---------|-----------|--------|------------|--------|--------------|---------|
| | U | U | U | U | Ü | U | U | U | Ü | U | U | U | U | U |
| RIS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | | - | L | | | | | | | | | | | |
| OAK RIDGE Y-12 | | | | | <u> </u> | <u> </u> | | | | | L | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | | - | | L | <u>-</u> | | | | | | | | L |
| PADUCAH GASEOUS DIFFUSION PLANT | | - | | - | | - | | - | - | | | | | |
| FERNALD | 2,804,076 | 1,880,114 | 631,895 | - | | | | | | | | | | |
| REACTIVE METALS, INCORPORATED | | - | | | <u> </u> | - | | | | - | <u> </u> | | | |
| WEST VALLEY | - | - | · | - | | <u> </u> | | | | | L: | - | | |
| WELDON SPRING | | • | - | | | | | | | | <u> </u> | | <u> </u> | L |
| HANFORD | | • | - | | | | | | | | <u> </u> | | <u></u> | |
| SAVANAH RIVER | | - | | | | <u> </u> | | | <u> </u> | | <u> </u> | | | Li |
| ROCKY FLATS | | - | - | | | <u> </u> | | - | | | : | | <u> :</u> | L |
| IDAHO | | - | | | | <u> </u> | | | <u></u> | | <u>:</u> | | - | L |
| OTHER SITES | 13,857,351 | 9,565,176 | 6,445,105 | 472,339 | <u>:</u> | | | | : | | ļ <u>:</u> | | <u>-</u> | ļ |
| | | | | | | | | | | | | | | |
| TOTAL | 16,661,427 | 11,445,290 | 7,077,000 | 472,339 | - | - | - | | | - | | - | | |
| | | | | | | | | | | | | | | |

| EXTERNAL RECEIPTS NORMAL (NATURAL) URANIU | FY1977 | FY 1978 | FY1979 | FY1980 | FY1981 | FY 1982 | FY1983 | FY1984 | FY1985 | FY1986 FVA | FY 1986 FVC | FY 1987 | FY1988 | FY1989 | FY1990 |
|---|--------|---------|--------|--------|--------|---------|----------|--------|--------|------------|-------------|------------|--------|--------|--------|
| | U | U | Ü | U | U | U | U | υ | U | U | U | U | U | U | U |
| RIS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | - | | - | - | - | | | - | | - | • | <u> </u> | | | L |
| OAK RIDGE Y-12 PORTSMOUTH GASEOUS DIFFUSION PLANT | - | - | - | - | - | | | | | | | <u> </u> | | | L: |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | • | | - | | | L: | <u> </u> | | | | | | | | L: |
| PADUCAH GASEOUS DIFFUSION PLANT | - | - | - | - | - | · · | | | | | - | - | | | L |
| FERNALD | - | - | - | - | | | - | | | | | L | | | L: |
| REACTIVE METALS, INCORPORATED | - | - | - | - | | | <u> </u> | | - | | | <u> </u> | - | - | L: |
| WEST VALLEY | - | - | - | - | • | - | - | - | | - | | L | | | L: |
| WELDON SPRING | • | - | - | - | - | - | - | | | | | L <u>-</u> | | | L |
| HANFORD | | - | - | - | | | | | - | - | - | <u> </u> | | | |
| SAVANAH RIVER | - | • | - | • | | - | · | | | | | L | - | | L |
| ROCKY FLATS | | | - | | | | | | | | - | L | | | L |
| ФАНО | | | - | - | - | - | | | | | | L | L | - | L |
| OTHER SITES | | | - | - | | - | - | | | | | | | | |
| | | | | | | | | | | | | | | | |
| TOTAL | - | - | - | - | - | - | - | - | • | - | - | - | • | - | - |
| | | | | | | | | | | | | | | | |

| EXTERNAL RECEIPTS NORMAL (NATURAL) URANIU | FY 1991 | FY1992 | FY1993 | FY1994 | FY1995 FVC | FY1995 GVC | FY 1996 | FY1997 | FY1998 | FY 1999 | TOTAL |
|---|----------|-----------|--------|--------|------------|------------|---------|----------|--------------|---------|-------------|
| | U | U | U | U | U | U | U | U | U | U | U |
| RIS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | |
| OAK RIDGE K-25 | | - | - | | | | | | | | |
| OAK RIDGE Y-12 | <u> </u> | | | | | | | | | | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | | | | | | | | | | |
| PADUCAH GASEOUS DIFFUSION PLANT | | | - | - | | | | | | | |
| FERNALD | | | - | - | | | | | | | 10,133,347 |
| REACTIVE METALS, INCORPORATED | | | - | - | - | | | - | | | |
| WEST VALLEY | - | | - | - | - | | | - | | | |
| WELDON SPRING | | | • | - | | | - | | | | |
| HANFORD | | - | - | - | | | | | - | | |
| SAVANAH RIVER | | | - | | | | | | | | |
| ROCKY FLATS | - | L | | | | | - | | | | |
| IDAHO | - | · · · · · | | - | | | | | | | |
| OTHER SITES | <u> </u> | <u> </u> | | | | | L: | <u>.</u> | L:_ | : | 111,882,630 |
| | l | | | | | | | | | | |
| TOTAL | - | - | - | • | - | - | - | - | - | - | 122,015,977 |
| | | | | | | | | | | | |

| <u> </u> | EXTERNAL RECEIPTS NORMAL URANIUM | | FY1952 | FY1953 | FY1954 | FY1955 | FY1956 | FY1957 | FY1958 | FY1959 | FY1960 | FY1961 | FY1962 | FY1963 |
|----------|--|-------------|----------|----------|----------|----------|-------------|----------|-----------|------------|------------|------------|------------|------------|
| RIS | SITE | | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS | U KGS |
| | FEMP (NLO) | FEMP | | | | | | | | | | | 2,563,408 | 2,253,854 |
| FVC | FEMP (WMCO) ATLANTIC RICHFIELD HANFORD COMPANY | FEMP HAN | | | | | | | | <i>·</i> | | | | |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | HAN | | | | | | | 8,000,407 | 12.898.013 | 15,032,283 | 15,546,776 | 13.445,683 | 16,619,49 |
| | OTHER SITES | OTHER | | | | | <u> </u> | | | | | | | |
| TOTAL | | · | - | - | • | <u> </u> | | • | 8,000,407 | 12,898,013 | 15,032,283 | 15,546,776 | 16,009,091 | 18,873,351 |

APPENDIX A.4 . WELDON SPRING NORMAL (NATURAL) RECEIPTS

| | EXTERNAL RECEIPTS NORMAL URANIUM | FY1964 | FY1965 | FY1966 | FY1967 | FY1968 | FY1969 | FY1970 | FY1971 | FY1972 | FY1973 | FY1974 | FY1975 | FY1976 | FY1976A | FY1977 |
|-------|------------------------------------|------------|------------|-----------|---------|----------|----------|------------|--------|--------|--------|----------|--------|----------|---------|----------|
| _ | | U | U | U | U | U | U | U | Ü | U | ū | U | U | U | U | U |
| RIS | SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | · | | | | | | | | | | | | | | | L |
| FVA | FEMP (NLO) | 2,804,076 | 1,880,114 | 631,895 | | | | | | | | | | | | |
| FVC | FEMP (WMCO) | | | | | | | | | | | | | | | |
| HVA | ATLANTIC RICHFIELD HANFORD COMPANY | | | | | | | | | | | | | | | |
| НХА | UNC NUCLEAR INDUSTRIES, RICHLAND | | | | | | | | | | | | | | | |
| | OTHER SITES | 13,857,351 | 9,565,176 | 6,445,105 | 472,339 | | | | | | | | | | | |
| | | | | | | | | ļ <u>.</u> | | | | | | | | |
| TOTAL | | 16,661,427 | 11,445,290 | 7,077,000 | 472,339 | | <u> </u> | <u> </u> | | | - | <u> </u> | - | | | |
| | | | | | | | L | <u> </u> | | | | <u> </u> | | <u> </u> | L | |

| | EXTERNAL RECEIPTS NORMAL URANIUM | FY1978 | FY 1979 | FY1980 | FY1981 | FY1982 | FY1983 | FY1984 | FY1985 | FY1986 FVA | FY1986 FVC | FY1987 | FY1988 | FY1989 | FY1990 | FY1991 | FY1992 |
|-------|------------------------------------|--------|---------|--------|--------|----------|--------|--------|----------|------------|------------|----------|---------|--------|--------|--------|----------|
| | | U | U | U | U | U | U | U | U | U | U | U | U | U | U | U | U |
| RIS | SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | | | | |
| FVA | FEMP (NLO) | | | | | | | | <u> </u> | | | | | | | | |
| | FEMP (WMCO) | | | | | | | | | | | | L | | | | |
| HVA | ATLANTIC RICHFIELD HANFORD COMPANY | | | | | <u> </u> | | | | | | | | | | | |
| НХА | UNC NUCLEAR INDUSTRIES, RICHLAND | | | | | | | | | | | | | | | | |
| | OTHER SITES | | | | | L | | | | | | | | | | | |
| | | | | | | | | | | | | <u></u> | | | | | |
| TOTAL | | - | - | | | - | - | - | <u> </u> | | - | | - | | | - | |
| | | | | | | | | | | | | . | | | | | |

| | EXTERNAL RECEIPTS NORMAL URANIUM | FY1993 | FY1994 | FY1995FVC | FY1995GVC | FY1996 | FY1997 | FY1998 | FY1999 | TOTAL |
|-------|------------------------------------|--------|--------|-----------|-----------|--------|--------|--------|--------|-------------|
| | | Ü | U | U | U | U | U | U | U | U |
| RIS | SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | . KGS |
| FVA | FEMP (NLO) | | | | | | | | | 10,133,347 |
| FVC | FEMP (WMCO) | | | | Ī | | | | | - |
| HVA | ATLANTIC RICHFIELD HANFORD COMPANY | T | [| F | I | | | | | - |
| HXA | UNC NUCLEAR INDUSTRIES, RICHLAND | | | | | | | | | |
| | OTHER SITES | | | | | | | | | 111,882,630 |
| TOTAL | | - | - | | | - | - | - | - | 122,015,977 |
| | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY1952 | FY1961 | FY1962-l | FY1969 | FY1970- | FY1979 | FY1980-F | Y1989 | FY1990-F | Y1999 | TOT | AL |
|------------------------------------|----------|--------------|-----------------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
| SITE | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS |
| Pu PROCESSING PLANTS * | - | | | | | | | | | | | |
| GASEOUS DIFFUSION PLANTS | · | | | | | | | | | | | |
| WEAPONS PLANTS | | | | | | | | | . | | 2,814 | |
| U PROCESSING PLANTS OTHER SITES | 135,846 | 299 | 2,814 29,163 | 64 | | | | | | | 165,009 | 36: |
| TOTAL | 135,846 | 299 | 31,977 | 70 | | - | | - | - | - | 167,823 | 369 |
| | | | | | | | | | | | | |

^{*} INCLUDES SCRAP NOT PROCESSED

APPENDA A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY | 1952 | FY | 1953 | FY | 1954 | FY | 1955 | FY | 1956 | FY | 1957 | FY | 1958 | FY19 | 959 | FY19 | 960 | FY19 | 61 |
|------------------------------------|-----|-------|-----|-------|------|----------|----------|--------------|----------|-------|----------|-------|----------|-------|--------|----------|--------|----------|--------|-------|
| | U | U-235 | U | U-235 | Ū | U-235 | U | U-235 | U | U-235 | υ | U-235 | υ | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | - | • | - | | | · · | L : | | | - | · | | | | | | | | | |
| OAK RIDGE Y-12 | | | | | | | | | | | | | | | | | | | | - |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | | | • | | <u> </u> | L.: | | <u> </u> | | | | <u>-</u> | | | L | | : | | |
| PADUCAH GASEOUS DIFFUSION PLANT | | | | | - | | L | | | | | | | | - | l | | | | |
| FERNALD | - | | - | | - | | L | | | | <u>:</u> | · | | | - | l | | | | |
| RMI | - | | | - | L | <u> </u> | L: | - | | | | | | | - | <u> </u> | | <u>-</u> | | - |
| WEST VALLEY | | - | | | L | <u> </u> | L.: | | | | <u> </u> | | <u> </u> | | | <u> </u> | | | | |
| WELDON SPRING | - | | • | - | L_:_ | <u> </u> | <u>.</u> | - | :_ | L | | | | | | [:_] | | : | | |
| HANFORD ² | - | • | | • | _ : | <u> </u> | L : | - | <u> </u> | | | | | | | L: | | | | - |
| SAVANAH RIVER | - | • | - | • | | | <u> </u> | - | - | | | | | - | - | l: | - | | | - |
| ROCKY FLATS | - | • | | • | | - | L : | | | | | | | | - | | | | | - |
| IDAHO | - | • | • | - | • | | | • | - | | ٠ | • | • | - | - | - | | - | | - |
| OTHER SITES | - | - | | - | | | I : | - | | - | - | | 128 | | 11,255 | 25 | 30,203 | 66 | 94,260 | 207 |
| | | | | | | | I | | | | | | | | | | | | | |
| TOTAL | - | | • | - | - | - | - | - | • | - | | - | 128 | - | 11,255 | 25 | 30,203 | 66 | 94,260 | 207 |
| | | | | | | | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY19 | 962 | FY | 1963 | FY | 1964 | FY1 | 965 | FY1 | 966 | FY | 1967 | FY | 1968 | FY | 1969 | FY | 1970 | FY | 1971 | FY | 1972 |
|------------------------------------|----------|----------|-----|-------|-----|-------|-------|----------|-------|-------|----------|-------|-----|-------|-------|-------|-----|-------|-----|-------|----------|----------|
| | U | U-235 | U | U-235 | Ü | U-235 | υ | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-23 |
| SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | l | <u> </u> | - | | L | | | | | | | | | - | | | | | | | <u> </u> | : |
| OAK RIDGE Y-12 | <u> </u> | <u> </u> | | | L | | - | L: | | L: | | | | | L.: | | | | | | l: | L: |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | <u> </u> | | | | | | <u> </u> | - | | <u> </u> | | | | | | | | | | <u> </u> | <u> </u> |
| PADUCAH GASEOUS DIFFUSION PLANT | | ·] | - | | - | | - | L | | | | | | | | | | | | - | <u> </u> | <u> </u> |
| FERNALD | - | i:i | | | 45 | | 2,769 | 6 | | | · · · | | | | | |] | | - 1 | - | <u>:</u> | <u> </u> |
| RMI | • | · | - | | - | • | | · . | | | | · | - | - | | | - | - | | - | · · | ΙΞ |
| WEST VALLEY | - | · · | - | - | - | | | | | | | | | | | | | | | | <u> </u> | |
| WELDON SPRING | | ·] | - | | - | | | | | [| | | | | | | ÷ | - | | | | <u> </u> |
| HANFORD | | | · | • | - | - | | · | | | - | | | | | | | | · | | · · | L |
| SAVANAH RIVER | - | · | - | - | | - | | | | | - | | · | - | [·] | | | | -] | | | |
| ROCKY FLATS | - | · | | - | - | | | - | | | | | - | | · | | | | | - | | - |
| IDAHO | | : | | | - | | | | | · . | • | | - | | - | - | - 1 | | - | | <u>:</u> | |
| OTHER SITES | 22,225 | 49 | • | - | 2 | • | • | | 6,936 | 15 | - | | - | | | - | | • | | - | · | - |
| | | | | | | | | | | | | | | | | | | | | | | [|
| TOTAL | 22,225 | 49 | - | - | 47 | - | 2,769 | 6 | 6,936 | 15 | - | - | - | - | - | • | - | - | - | - | - | - |
| | | | | | | | | | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY | 1973 | FY | 1974 | FY | 1975 | FY | 1976 | FYI | 976A | FY | 1977 | FY | 1978 | FY | 1979 | FY | 1980 | FY | 1981 | FY | 1982 |
|------------------------------------|----------|-------|-----|-------|-----|-------|----------|-------|-----|-------|----------|-------|-----|-------|-----|----------|-----|-------|----------|-------|-------|--------------|
| | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | Ü | U-235 | Ü | U-235 | U | U-235 |
| SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | | | | | | | | | | | | | | | | | | |
| OAK RIDGE K-25 | | | • | | - | | | | | | <u> </u> | | - | - | - | | | | | | [:] | - |
| OAK RIDGE Y-12 | - | - | - | - 1 | - | - | | - | - | | · · | | | | | <u>:</u> | | | | | l:J | |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | • | | - | | - | - | | | - | • | - | | | • | | • | • | | - | | . · | |
| PADUCAH GASEOUS DIFFUSION PLANT | | - | - | | - | | T | - | | • | | | - | | | | | | - | | . : | - |
| FERNALD | | | - | - 1 | - | - | | | | - | | | | • | | | - | - | | | | |
| RMI | | - | - | | - | | I | | | | | [| | -) | - | | | | : | | | |
| WEST VALLEY | - | - | - | - | - | | [:-:- | | | - | - | | - | - | • | | - | | - | | L: | |
| WELDON SPRING | - | | - | - | - | | | | | | | | - | - | | | | | | | L: | |
| HANFORD | - | - | | | - | - | L.: | | | | | | | | - | | | - | | | l: | |
| SAVANAH RIVER | | - | - | - 1 | - | | [:-: | | | | | - | | • | • | | - | | • | | | - |
| ROCKY FLATS | | • | - | [| - | | <u> </u> | -] | - | | | · | | • | | | L | | <u>-</u> | | L:J | |
| IDAHO | | - | - | - | - | | L | | | | | | | · | | · | | | | | l: | - |
| OTHER SITES | <u> </u> | | - | | | | <u> </u> | | | - | | | | | - | | | | - | | : | |
| | | | | | | l | | | | | | | | | | | | | | | | |
| TOTAL | - | - | - | - | - | - | - | - | - | - | - | - | • | • | - | - | - | - | • | - | • | • |
| | | | | | | | | | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY | 1983 | FY | 1984 | FY | 1985 | FY 19 | 86 FVA | FY19 | 86 FVC | FY | 1987 | FY | 1988 | FY | 1989 | FY | 1990 | FY | 1991 | FY | 1992 |
|------------------------------------|----------|----------|----------|-------|------------|----------|-------|----------|-------------|--------|----------|------------|-----|-------|-----|----------|----------|------------|----------|----------------|----------|---------|
| | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | Ü | U-235 | U | U-235 |
| SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | | | | L | | | | | | | | | | | | | | | | ļ | |
| OAK RIDGE K-25 | <u> </u> | | | | L | | | | : | | <u>.</u> | | | | | | | : | · | - | ļ: | ļ |
| OAK RIDGE Y-12 | <u> </u> | | | | L: | - ! | L | | | | | | | | | | | | | . | ļ | L |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | <u> </u> | · | | | L.: | | L: | | | | <u>.</u> | | | | | | | ļ: | | | ļ: | |
| PADUCAH GASEOUS DIFFUSION PLANT | <u> </u> | | | | L | | L: | | | | · · · · | | | | | | | | | <u>-</u> | : | |
| FERNALD | 1 | | <u> </u> | | <u> </u> | : | L: | | | | : | L | | | | | | | | ļ . | | L |
| RMI | <u> </u> | | - | | L: | <u> </u> | | | | | | | | | | <u>-</u> | | | | | ļ | |
| WEST VALLEY | <u> </u> | | | | L: | <u> </u> | L: | <u> </u> | | | | | | | | | | | | <u>-</u> | | |
| WELDON SPRING - | <u> </u> | | | | L | <u> </u> | | | | | | | | | - | | | | | | | ļi. |
| HANFORD | L | L | | | L <u>-</u> | | L: | | | | <u> </u> | | | : | | | | | | - | <u>-</u> | L |
| SAVANAH RIVER | <u> </u> | : | | - | | | L: | | | | | | | | | | | ļ <u>:</u> | | <u>-</u> | ļ: | |
| ROCKY FLATS | <u> </u> | <u> </u> | | | L: | <u> </u> | L | <u></u> | | | : | | | | | | ļi | | | | ļ: | |
| IDAHO | <u> </u> | | | | | | L: | | · · · · · · | | | | | | | | ļ | : - | | <u>:</u> | ļ: | |
| OTHER SITES | l | <u> </u> | <u>.</u> | | L | | L: | | <u> </u> | | <u> </u> | ļ <u>.</u> | | | | | ļ | | <u>-</u> | | ļ: | |
| | | | | | | | L | | | | | L | | | | | <u> </u> | | | | | |
| TOTAL | - | - | • | - | - | - | - | - | • | - | - | - | • | • | - | - | <u> </u> | | • | <u> </u> | - | • |
| | 1 | | | | | | | | | | | | | | | | | | | | | |

APPEN A.4 WELDON SPRING DEPLETED RECEIPTS SUMMARIZED

| EXTERNAL RECEIPTS DEPLETED URANIUM | FY | 1993 | FY | 1994 | FY19 | 95 FVC | FY19 | 95 GVC | FY | 1996 | FY | 1997 | FY | 1998 | FY | 1999 | TOTA | AL |
|------------------------------------|---------|-------|-----|-------|----------|------------|----------|----------|-----|----------|----------|-------|-----------------|-------|-----|-------|---------|--------------|
| | U | U-235 | U | U-235 | Ü | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 |
| SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| OAK RIDGE K-25 | | | | | } | ļ <u>-</u> | | | | | | | | | | | | } <u>-</u> - |
| OAK RIDGE Y-12 | | | | | | | | | | | | | - - | | | | • | · · · · |
| PORTSMOUTH GASEOUS DIFFUSION PLANT | | | • | - | | | <u> </u> | | | <u> </u> | | | | | | - | | [<u>:</u> _ |
| PADUCAH GASEOUS DIFFUSION PLANT | l | | | - | I | | <u> </u> | - | - | - | | | | | | | | |
| FERNALD | · · | | - | | L.: | | <u> </u> | | | | | - | | | - | | 2,814 | |
| RM! | - | | - | - | · | | L | | | | | | | | - | | | ļ <u>:</u> . |
| WEST VALLEY | · | • | | - | L.: | | | | : | <u> </u> | | - | | - | | | | ļ <u>-</u> |
| WELDON SPRING | · · · | | | | L | <u> </u> | L: | <u> </u> | | <u> </u> | | | | - | | : | | |
| HANFORD | | | | - | L | | <u> </u> | | | | | - | | | | | | ļ <u>.</u> |
| SAVANAH RIVER | l: | | | - | <u> </u> | | L | | l | | <u>:</u> | | | | | : | | |
| ROCKY FLATS | | | | | <u> </u> | | L: | | | | : | | | | | | | ļi. |
| IDAHO | I | | | | L | <u>-</u> | L: | : | | | | | | | | | | ļ <u>:</u> |
| OTHER SITES | | | | · | ļ | : | ļ: | | | <u> </u> | | | | | | | 165,009 | 363 |
| TOTAL | - | - | - | - | • | • | - | | - | - | - | - | - | • | - | - | 167,823 | 369 |
| | | | | | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS

| | EXTERNAL RECEIPTS DEPLETED URANIU | M | FY | 1952 | FY | 1953 | FY | 1954 | FY | 1955 | FY | 956 | FYI | 957 | FY | 958 | FY1 | 959 | FY19 | 960 | FYI | 961 |
|-------|-----------------------------------|----------|-----|-------|-----|----------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|--------|-------|--------|-------|--------|-------|
| | | | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | U | U-235 | Ü | U-235 | Ū | U-235 | U | U-235 |
| RIS | SITE | | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| | | <u> </u> | L | | | <u> </u> | | | L | | | | | | | L | | | İ | | L | |
| FVA | FEMP (NLO) | FEMP | L | | | l | J | | I | | | | | | | | | | | | | |
| FVC | FEMP (WEMCO) | FEMP | | | 1 | | l | | 1 | | | 1 1 | | | | | | | | | | 1 |
| MISC | OTHER SITES | OTHER | | | l | 1 | l | ĺ | I | 1 1 | | 1 1 | | | 128 | 1 | 11,255 | 25 | 30,203 | 66 | 94,260 | 207 |
| | | | | | | | | | | | | | | | | | | | | | | [|
| TOTAL | TOTAL | | - | • | | - | | | - | - | ·- | - | - | - | 128 | | 11,255 | 25 | 30,203 | 66 | 94,260 | 207 |
| | | | | | | | | | | | | | | | | | | | | | | Г |



| | EXTERNAL RECEIPTS DEPLETED URANIU | A FYI | 962 | FY | 1963 | F | 1964 | FY | 965 | FY | 966 | FY | 1967 | FY | 1968 | FY | 1969 | FY | 1970 | FY | 1971 | FY | 11972 |
|-------------|-----------------------------------|----------|--------------|----------|--------------|-----------|--------------|----------|--------------|----------|--------------|----|---------------|----------|--------------|----------|--------------|----------|--------------|----|--------------|----------|--------------|
| RIS | SITE | U KGS | U-235 KGS | U KGS | U-235 KGS | U KG\$ | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | | U-235 KG\$ | บ KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | | U-235 KGS | U KGS | U-23 KGS |
| FVA | FEMP (NLO) | | | | | 45 | | 2 769 | 6 | | | | | | | | | | | | | ļ | ļ |
| FVC MISC | FEMP (WEMCO) OTHER SITES | | 1 | | | | 1 1 | | | 6,936 | 15 | | | | | | | | | } | | ļ | |
| TOTAL | TOTAL | 22,225 | 49 | - | - | 47 | - | 2,769 | 6 | 6,936 | 15 | - | - | - | | - | - | | | - | | - | |
| | | | | | | | | | | | | | | | | | | | | | | | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS

| | EXTERNAL RECEIPTS DEPLETED URANIU | M FY | 1973 | FY | 1974 | FY | 1975 | FY | 1976 | FY | 976A | FY | 1977 | FY | 1978 | FY | 1979 | FY | 1980 | FY | 1981 | FY | 1982 | FY | /1983 |
|-------|-----------------------------------|------|--------------|----------|--------------|----------|--------------|----|--------------|----------|--------------|--------------------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
| RIS | SITE | | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | | U-235 KGS | | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | | U-235 KGS | | U-235 KGS |
| EV.A | FEMP (NI.O) | | | | | | | | | | | 1 1 | | i I | | 1 | | | | | | | } - | 1 | 1 |
| FVC | FEMP (WEMCO) | | | | | | | | | 1 | | 1 1 | | | | | | | | | | 1 | i . | 1 | 1 |
| MISC | OTHER SITES | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL | TOTAL | - | - | <u> </u> | • | • | • | Ξ. | - | <u> </u> | - | $\overline{\cdot}$ | | • | | • | - | \vdash | | - | - | Ŀ | - | <u> </u> | ⊢∸ |
| | | i . | | | | i | | 1 | | L | | | | | | | | | 1 | 1 | | <u> </u> | | | |

| | EXTERNAL RECEIPTS DEPLETED URANIU | 1 FY | 1984 | FY | 1985 | FY19 | 86 FVA | FY19 | 86 FVC | FY | 1987 | FY | 1988 | FY | 1989 | FY | 1990 | FY | 1991 | FY | 1992 | FY | /1993 | FY | 1994 |
|-------|-----------------------------------|----------|--------------|----------|--------------|---|--------------|----------|--------------|----------|--------------|----|--------------|-------------|--------------|----------|--------------|----------|--------------|----|--------------|----------|--------------|--------------|--------------|
| RIS | SITE | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | - | U-235 KGS | _ | U-235 KGS | U KGS | U-235 KGS | U KGS | U-235 KGS | | U-235 KGS | _ | U-235 KGS | | U-235 KGS |
| | | 1 | | | | | | | | | | | | | | | | | | | | | | | Ι. |
| FVA | FEMP (NLO) | 1 | I I | | l | 1 | i | | | | | | i | | 1 | | i i | | l | ı | | | 1 | | |
| FVC | FEMP (WEMCO) | | 1 | | | 1 | 1 | li . | 1 | | 1 | | | | | 1 | | | ı | 1 | | 1 | 1 | | t |
| MISC | OTHER SITES | | | | | • | 1 | i | ļ | | | | 1 | l I | | 1 | | | 1 | l | | e i | ł | | 1 |
| | | | | | | | | | | | | | | | | | | <u> </u> | ļ | | | ļ | — | | ļ |
| TOTAL | TOTAL | • | • | - | | <u> - </u> | | <u> </u> | - | <u> </u> | | - | <u> </u> | <u> -</u> _ | <u> </u> | Ŀ | | <u> </u> | <u> </u> | | | <u> </u> | ┵ | ⇂ | <u> </u> |
| | | | <u> </u> | | | | | | <u> </u> | | | | | <u> </u> | | | | | ł | | <u> </u> | <u></u> | Щ_ | <u> </u> | |

APPENDIX A.4 WELDON SPRING DEPLETED RECEIPTS

| | EXTERNAL RECEIPTS DEPLETE | D URANIU FY19 | 95FVC | FY19 | 95GVC | FY | 1996 | FY | 1997 | FY | 1998 | FY | 1999 | TOTA | 4L |
|-------|---------------------------|---------------|-------|------|-------|-----|-------|-----|-------|-----|----------|-----|-------|---------|----------|
| | | U | U-235 | Ü | U-235 | U | U-235 | U | U-235 | Ü | U-235 | U | U-235 | U | U-235 |
| RIS | SITE | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS | KGS |
| FVA | FEMP (NLO) | | | | | | | | | | <u> </u> | | | 2,814 | <u> </u> |
| FVC | FEMP (WEMCO) | | | | | | [| | | | I | | | | <u> </u> |
| MISC | OTHER SITES | | | | | | | | | | ļ | | | 165,009 | 36 |
| TOTAL | TOTAL | - | | - | - | | - | • | - | ╚ | - | | - | 167,823 | 369 |
| | | | | | | | | | | | | | | | |